UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/780,579	02/09/2001	Jeff B. Erwin	06576-105019 (MS #150875.	1605

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EXAMINER
PHAN, MAN U

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No. ᛁᚴ	Applicant(s)
	09/780,579	ERWIN, JEFF B.
Office Action Summary	Examiner	Art Unit
	Man Phan	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-14 and 16-38* is/are rejected.

7)☒ Claim(s) *2 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This communication is in response to applicant's communications filed 8/16/2005 in the

application of Erwin for a "method and apparatus for network analysis, such as analyzing and

correlating identifiers of frame relay circuits in a network" filed 02/09/2001. The proposed

amendments filed 10/07/2004 to the claims have been entered and made of record. Claims 1, 4,

14-16 have been amended and new claims 20-38 have been added. Claims 1-38 are pending in

the application.

2.   In response to Applicant's argument that there is no suggestion to combine the

references (page 4, last paragraph), i.e., Bosa et al. (US#6,115,362) and Albert et al.

(US#6,606,316) as proposed in the office action. The Examiner recognizes that references cannot

be arbitrarily combined and that there must be some reason why one skilled in the art would be

motivated to make the proposed combination of primary and secondary references. *In re*

Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to

make the modification be expressly articulated. The test for combining references is what the

combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In*

re McLaughlin, 170 USPQ 209 (CCPA 1971). It must be recognized that any judgement on

obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so

long as it takes into account only knowledge which was within the level of ordinary skill at the

time the claimed invention was made, and does not include knowledge gleaned only from the

applicant's disclosure, such a reconstruction is proper. *In re McLaughlin*, 443, F.2d 1392; 170

USPQ 209 (CCPA 1971).

Claim Rejections - 35 USC ' 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
>
> in section 102 of this title, if the differences between the subject matter sought to be patented and the
>
> prior art are such that the subject matter as a whole would have been obvious at the time the invention
>
> was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability
>
> shall not be negatived by the manner in which the invention was made.

4.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bosa et al.

(US#6,115,362) in view of Albert et al. (US# 6,606,316).

Regarding claim 14, the references disclose method and system for mapping of frame

relay circuits in computer network, according to the essential features of the claim. Bosa

discloses receiving segment addresses of selected network segments in the network, wherein

each segment includes at least a portion spanning a public switched network and wherein each

selected network segment is defined by pairs of segment addresses, obtaining statistical data

associated with each identified segment address in the network, analyzing the obtained

statistical data to identify similar statistical data and identifying the pairs of segment addresses

corresponding to the selected network segments, based on the identified similar statistical data

(col. 8., line 1 - col. 9, line 38). However, Bosa does not disclose expressly the statistical data

representing different types of statistics. In the same field of endeavor, Albert et al.

(US#6,606,316) disclose a method of gathering statistics about packets includes determining at

a service manager statistics that are to be gathered for a flow and sending instructions to a

forwarding agent from the service manager detailing how to gather statistics for the flow. The

forwarding agent is implemented on a network device and the forwarding agent is operative to

receive statistics gathering instructions for a flow from the service manager (*Forwarding*

agents record different types of statistics). A report is received at the service manager of

statistics gathered at the forwarding agent according to the instructions sent by the service

manager. A service manager includes a processor configured to determine statistics that are to

be gathered for a flow. A forwarding agent sending interface is configured to send instructions

to a forwarding agent from the service manager detailing how to gather statistics for the flow.

The forwarding agent is implemented on a network device and the forwarding agent is

operative to receive statistics gathering instructions for a flow from the service manager. A

forwarding agent receiving interface is configured to receive a report at the service manager of

statistics gathered at the forwarding agent according to the instructions sent by the service

manager (Col. 4, lines 12 plus and Col. 27, lines 57 plus).

5.   Claims 1-13 and 16-19 and 20-38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bosa et al. (US 6, 1 1 5,362) in view of Albert et al. (US# 6,606,316), and

further in view of Seid et al. (US 5,768,271).

        Regarding claims 1 and 16, Bosa and Albert disclose the claimed limitations as

discussed in the paragraph 10 above. Bosa further discloses creating a list of unmatched data

link connection identifiers, polling network devices associated with the data link connection

identifier, obtaining statistical data associated with each identified segment address in the

network, analyzing the obtained statistical data to identify similar statistical data and

identifying the pairs of segment addresses corresponding to the selected network segments (col.

8., line 1 - col. 9, line 38). However, Bosa and Albert fail to expressly disclose that the network

is a virtual private network. Seid discloses that Virtual Private Networks (VPNs) are a

collection of logical nodes and virtual paths (VPs) and include one or more virtual circuits

(VCs) (see Abstract). At the time the invention was made, it would have been obvious to a

person of ordinary skill in the art to use a VPN for the network in the invention of Bosa. One of

ordinary skill in the art would have been motivated to do this in order to provide added security

to the network connections.

Regarding claim 3, Bosa discloses traffic tables (45A-45N) and correlation matrices

(46A-46N), which meet the limitation of storing the pairs of segment addresses in a database

(see Figure 4).

Regarding claim 4, Bosa discloses a traffic profile of each of the segment address (see

Figure 8), which meets the limitation of statistical fingerprints for each segment address.

Regarding claims 5 and 18, Bosa discloses that the statistical fingerprints of a pair of

segment addresses are inverses of each other (col. 8, lines 1-15).

Regarding claims 6-8 and 19, Bosa discloses aggregating a predetermined set of core

statistics, which includes the number of bytes sent and received (col. 6, lines 50-64).

Regarding claim 9, Bosa discloses polling network devices for obtaining statistical data

(col. 6, lines 50-59).

Regarding claim 10, Bosa discloses that each network device may be a router (col. 6,

line! 10-25).

Regarding claims 11 and 12, Bosa discloses that the segment addresses comprise a data link circuit identifier (DLCI) (see Figures 8-10).

Regarding claim 13, Bosa discloses that the method of claim 1 may be implemented in a computer-readable medium having computer-executable instructions (col. 9, lines 48-67).

Regarding claim 17, Bosa discloses polling at predetermined intervals (col. 8, line 52-col. 9, line 2).

With respect to claims 20-38, These claims differ from claims Bosa et al. (US 6, 1 1 5,362) in view of Albert et al. (US# 6,606,316) and Seid et al. (US 5,768,271) in that the claims recited a computer program product for performing the same basis of steps and apparatus of the prior arts as discussed in the rejection of claims 1-13, 16-19 above. It would have been obvious to a person of ordinary skill in the art to implement a computer program product in Bosa and Albert in view of Seid for performing the steps and apparatus as recited in the claims with the motivation being to provide the efficient enhancement to the network analysis, and easy to maintenance, upgrade.

Allowable Subject Matter

6.   Claims 2, 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7.   The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest wherein the step of

analyzing the obtained statistical data further comprises the steps of identifying potential pairs of

segment addresses and confirming that the potential pairs of segment addresses are the pairs of

segment addresses based on the obtained refined statistical data, as expressly recited in the

claims.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

The Mawhinney et al. (US#6,631,119) is cited to show the system and method for

measuring the efficiency of data delivery in a communication network.

The Crooks (US#2002/0055988) is cited to show the network topology discovery in a

frame relay based wide area network comprising multiple local area networks.

The Hoang (US#6,459,700) is cited to show the multiple segment network device

configured for a stacked arrangement.

The Whitmire et al. (US#6,243,756) is cited to show network device with unified

management.

9.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can

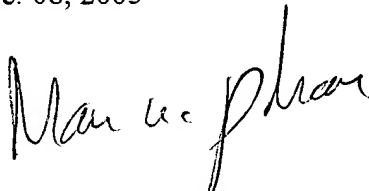normally be reached on Mon - Fri from 6:00 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the

organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (571) 272-2600.

10.   Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information

for unpublished applications is available through Private PAIR only. For more information

about the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions on

access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free

1-866-217-9197.

Mphan

Dec. 08, 2005

MAN U. PHAN
PRIMARY EXAMINER